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WRNC



Sharing information and knowledge for the benefit of native wildlife

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Tools for Training

Yes! You CAN train your wildlife ambassadors!!

By Nicki Dardinger

Over the next year, we will be devoting some space in the WRNC newsletter to animal training; more specifically – how to use positive reinforcement and operant conditioning training techniques to shape the behaviors of your wildlife ambassadors and develop rewarding relationships between you and the animals in your care. So many rehabilitators are overwhelmed with their daily to-do lists that they believe they don't have time to invest in the training of their education animals. However, some would argue (including me!) that setting aside time for thoughtful training sessions is just as important to an animal's well being as food, water and a clean shelter. To help get us started, we thought we'd spend a little bit of time going over some of the basic theories of how animals learn.

Classical Conditioning

Made famous by physiologist Ivan Pavlov in the early 20th century, *classical conditioning* involves simultaneously presenting an animal with a neutral stimulus and a significant stimulus. A neutral stimulus (referred to as the conditioned stimulus) could be any event that does not result in a behavioral response from the animal. The significant stimulus (referred to as the unconditioned stimulus) is an event that does result in a behavioral response from the animal (the response is referred to as the unconditioned response). When the two stimuli are presented together, they eventually become associated, and the animal begins to respond to the neutral stimulus (this response is referred to as the conditioned response).

The most famous example of classical conditioning was Pavlov's experiment conducted on the salivary glands of dogs in the early 1900s. Pavlov had noticed during a previous experiment on the digestion of dogs that the dogs not only salivated in the presence of meat, but they also salivated upon seeing the lab technician that normally fed them. To test his theory that animals could develop a conditioned response to a neutral stimulus, he designed an initial experiment where he used a bell to call the dogs to their food. After a few repetitions, the dogs started to salivate in response to the bell, regardless of whether food was present.

What role does classical conditioning play with our educational ambassadors? Have you ever noticed a change in behavior when an animal sees its caretaker approach with a food bucket? While typically, a person walking by with a bucket would not elicit a food-related response in an animal, after several (or maybe only one or two!) occurrences of a person walking by with a food bucket leading to the arrival of food, an animal will associate the bucket with food, and will display a food-related behavior, regardless if food is present.

Operant Conditioning

Operant conditioning refers to the use of a behavior's antecedent and/or consequence to influence or shape the future occurrence of the behavior. An antecedent refers to an event preceding behavior, while a consequence refers to an event occurring after behavior. The term reinforcement describes a consequence that causes an animal's behavior to occur with greater frequency, while the term punishment describes a consequence that causes an animal's behavior to occur with less frequency. Finally, the terms positive and negative refer to adding something to the system and removing something from the system, respectively.

The following table describes the four main components of operant conditioning:

| | Positive | Negative |
|----------------------|---|--|
| Reinforcement | Occurs when a behavior is followed by a consequence that is rewarding , increasing the frequency of that behavior. Ex: Trainer presents cue, groundhog stands up on hind legs, receives a piece of food. In the future, the groundhog stands on hind legs in response to the trainer's cue. | Occurs when a behavior is followed by the removal of an aversive stimulus, increasing the frequency of that behavior. Ex: Gloved hand pushes into hawk's legs, hawk steps up on gloved hand. In the future, hawk steps up on gloved hand when hand pushes into its legs. |
| Punishment | Occurs when a behavior is followed by an undesired consequence, resulting in a decrease in that behavior. Ex: Cat jumps on countertop and is sprayed with water. In the future, the cat doesn't jump on the countertop. | Occurs when a behavior is followed by the removal of a stimulus, resulting in a decrease in that behavior. Ex: Cue given for crow to fly to glove. Crow doesn't fly. Cue is taken away. In the future, when presented with cue, crow flies to glove. |

Often, when developing training plans for animals, trainers focus on the incorporation of positive reinforcement. The use of rewards to influence behavior serves two purposes. Not only is a trainer rewarding behaviors that they want the animal to continue to perform, but the trainer is also developing a relationship with the animal based on trust. The process of developing a positive relationship with wildlife can often be time consuming and requires a great deal of patience on the part of the trainer. But in the long run, the time and effort will lead to more comfortable wildlife ambassadors (and happier trainers!).

Both forms of learning, classical and operant conditioning, are present in all of our training sessions with our wildlife ambassadors. Trainers need to be aware of how an animal's environment influences their behavior and need to be mindful of all cues that may be causing an animal to exhibit, or not exhibit, particular behaviors. When developing a training plan, keep in mind that both operant conditioning and classical conditioning play a role in what your animals are learning, and in what behaviors your animals are exhibiting.

In future issues, we will be discussing specific behavioral issues and also delving into some more advanced training theories and practices. Are you experiencing challenges with training your wildlife ambassadors? Do you have a question that you would like answered in future issues? Please send any questions, comments or concerns to Nicki Dardinger at Nicki.Dardinger@gmail.com.

Training Resources

Behavior Works: http://www.behaviorworks.org/htm/articles_behavior_change.html

International Association of Avian Trainers and Educators (IAATE): www.iaate.org

Pryor, Karen. Don't Shoot the Dog. 1999.

Natural Encounters: <http://www.naturalencounters.com/pressRoom.html>

Training Workshops

Association of Zoos and Aquariums: <http://www.aza.org/professional-training/>

Behavior Works: http://www.behaviorworks.org/htm/lla_professional_overview.html

Natural Encounters: <http://www.naturalencounters.com/trainingEducationWshopsProf.html>

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